

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (currently amended): A liquid crystal display device comprising:

a liquid crystal layer having a twist angle (ϕ) of about $[[60^\circ]]$ 70° to about 90° ;
a polarizer positioned to receive light from a light source and to polarize said light, said polarizer polarizing said light such that an angle β exists between a vector of said polarized light and a first alignment direction of said liquid crystal layer;

a first substrate coupled to said liquid crystal layer; and

a second substrate coupled to said liquid crystal layer, said second substrate comprising a reflective surface;

wherein β is in a range of about -13° to $+13^\circ$ and wherein a value of $\Delta n d$ is about $0.1\mu\text{m}$ to about $[[0.12\mu\text{m}]]$ $0.2\mu\text{m}$ wherein Δn is a birefringence of the liquid crystal layer and d is a thickness of the liquid crystal layer.

Claim 2 (currently amended): A liquid crystal display as in claim 1 ~~further comprising:~~

~~a first substrate coupled to said liquid crystal layer;~~

~~a second substrate coupled to said liquid crystal layer, wherein~~ said first substrate and said second substrate defining said thickness d .

Claim 3 (canceled).

Claim 4 (currently amended): A liquid crystal display device as in claim $[[3]]$ 1 wherein said reflective surface comprises a plurality of reflective pixel electrodes disposed on said second substrate.

Claim 5 (original): A liquid crystal display device as in claim 4 wherein said second substrate comprises an integrated circuit.

Claim 6 (original): A liquid crystal display device as in claim 2 wherein said first substrate is transparent and comprises a transparent electrode.

Claim 7 (original): A liquid crystal display device as in claim 6 wherein a first alignment layer is created on said first substrate, said first alignment layer determining said first alignment direction and wherein a second alignment layer is created on said second substrate, said second alignment layer determining a second alignment direction and wherein said twist angle is determined by the angle between said first alignment direction and said second alignment direction.

Claim 8 (original): A liquid crystal display device as in claim 7 wherein said polarizer is a polarizing beamsplitter.

Claim 9 (original): A liquid crystal display device as in claim 2, wherein said light source is a field sequential light source which separately provides a plurality of different colored light over time which correspond to separate color fields.

Claim 10 (original): A liquid crystal display device as in claim 9 wherein said light source comprises 3 differently colored LEDs (light emitting diodes) which are sequentially and separately turned on.

Claim 11 (previously presented): A liquid crystal display device as in claim 2 further comprising:
at least one lens positioned to receive modulated light from said liquid crystal layer.

Claim 12 (original): A liquid crystal display device as in claim 11 wherein said liquid crystal display device is housed within a head mounted display.

Claim 13 (original): A liquid crystal display device as in claim 9 wherein each separate color field of said separate color fields lasts for no longer than about 8 milliseconds.

Claims 14-17 (canceled).

Claim 18 (new): A liquid crystal display device as in claim 1 wherein integral multiples of 90° are added to or subtracted from angle β .